Message

From: Hoyer, Marion [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8DCDB076983049369A80F430A9F1D067-HOYER, MARION]

Sent: 4/8/2019 12:46:29 PM

To: Yelverton, Tiffany [Yelverton.Tiffany@epa.gov]

Subject: RE: Check In -- EtO Testing

Good Morning Tiffany,

No worries. Tom is working with Enthalpy on a quote that includes a spiked canister. Folks on my end were thinking we might not need the spiked canister, but I'd rather have the data be super defensible when we have to release it and given your work was the first ever on mobile source exhaust, it seemed like repeating that recovery from the sample matrix was important.

We are going to throw a ton of money at this so we can get Enthalpy to do the source samples, but it will be worth it.

Tom just let me know he is having Enthalpy also analyze M3C, TO-15 speciation and sensitivity analysis (I think by the later he means recovery, but I'm not sure).

Hope your Monday starts off well. Marion

From: Yelverton, Tiffany

Sent: Monday, April 08, 2019 8:30 AM **To:** Hoyer, Marion hoyer.marion@epa.gov

Subject: RE: Check In -- EtO Testing

Hey Marion,

My apologies, but I'm just now back in the office and getting your voicemail. For some reason your call didn't ring both my desk and my cell, so I didn't even know I had a missed call or message. Therefore, I replied to your email on Friday without having heard your explanation/concerns. Have you guys made a decision on the spiked can or is that something we should still discuss?

Also, the 6-month turnaround for you having a couple labs up to speed for testing sounds great! I hope you guys can pave that road for us. I plan/hope to have in-house (real/near-real-time) EtO measurement capabilities within that time frame as well. I know we will be able to work together to get what we need, it just might take a little bit of time!

Best, Tiffany

Tíffany L. B. Yelverton, Ph.D.

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109 T. W. Alexander Drive (E305-01)

Research Triangle Park, NC 27711

919.541.9456 (office) 919.541.0554 (fax)

From: Yelverton, Tiffany

Sent: Friday, April 05, 2019 11:10 AM

To: Long, Thomas <<u>Long.Thomas@epa.gov</u>>; Hoyer, Marion <<u>hoyer.marion@epa.gov</u>>; Cook, Rich <<u>Cook.Rich@epa.gov</u>>; Hays, Michael <<u>Hays.Michael@epa.gov</u>>; George, Ingrid <<u>George.Ingrid@epa.gov</u>>; Geidosch, Justine <<u>Geidosch.Justine@epa.gov</u>>; Laroo, Chris <<u>Iaroo.chris@epa.gov</u>>; Cullen, Angela <<u>cullen.angela@epa.gov</u>>; Nelson, Brian <<u>nelson.brian@epa.gov</u>>; Shores, Richard <<u>Shores.Richard@epa.gov</u>>; Olechiw, Michael <olechiw.michael@epa.gov>

Cc: Weinstock, Lewis < Weinstock. Lewis@epa.gov >; Kariher, Peter < Kariher. Peter@epa.gov >

Subject: RE: Check In -- EtO Testing

That's great news Tom! It sounds like you've made a lot of progress in convincing them to analyze the samples. I guess cost will be the determining factor for sure, as I know they will want to cover expenses for downtime, cleaning of the columns and concentrator, etc. Thanks for making the effort to talk them into helping!!

As for the spiked can from the diesel study. It is your call if you would like to use that as the justification for sample recovery. Peter has spoken to the chemists at Enthalpy in great detail and feels confident with the recovery of the spiked EtO. I'm CC'ing Peter here in case he has anything further to add regarding the spiked can or the potential analysis from the GDI in general. As I mentioned to Tom yesterday, it might be very informative to pay Enthalpy the extra fee to have them do the sensitivity analysis/test on the samples (each of them would be wonderful, but one or two strategically chosen would be nice as well).

Best, Tiffany

Tíffany L. B. Yelverton, Ph.D.

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From: Long, Thomas

Sent: Friday, April 05, 2019 10:12 AM

To: Hoyer, Marion hoyer.marion@epa.gov">hoyer.marion@epa.gov; Cook, Rich hoyer.marion@epa.gov; Cook, Rich hoyer.marion@epa.gov; George, Ingrid@epa.gov; Geidosch, Justine hoyer.Justine@epa.gov; Laroo, Chris hoyer.Justine@epa.gov; Cullen, Angela hoyer.Justine@epa.gov; Nelson, Brian hoyer.Justine@epa.gov; Shores, Richard@epa.gov; Yelverton, Tiffany@epa.gov; Olechiw, Michael hoyer.Justine@epa.gov; Yelverton, Tiffany@epa.gov; Olechiw, Michael hoyer.Justine@epa.gov; Yelverton, Tiffany@epa.gov; Olechiw, Michael hoyer.Justine@epa.gov; Yelverton, Tiffany@epa.gov; Olechiw, Michael

Cc: Weinstock, Lewis < Weinstock. Lewis@epa.gov>

Subject: RE: Check In -- EtO Testing

That will be your call. They have already agreed to provide a quote for the triplicate samples. I will forward the quote on to you and you could make that change in your PR if you choose.

Thomas Long, Mechanical Engineer Mail Drop E343-02 Building D Room 360 109 T. W. Alexander Drive Research Triangle Park, NC 27711

Phone: 919-541-3944

From: Hoyer, Marion

Sent: Friday, April 05, 2019 10:08 AM

To: Long, Thomas <<u>Long.Thomas@epa.gov</u>>; Cook, Rich <<u>Cook.Rich@epa.gov</u>>; Hays, Michael

Cc: Weinstock, Lewis < Weinstock, Lewis@epa.gov>

Subject: RE: Check In -- EtO Testing

Hi Tom,

We were thinking for this round and given the limited testing Enthalpy is likely able to do that we would just do one test day (not triplicate samples). What do you think?

Marion

From: Long, Thomas

Sent: Friday, April 05, 2019 7:06 AM

To: Hoyer, Marion https://docs.nc/marion@epa.gov; Cook, Rich https://docs.nc/marion@epa.gov; Cook, Rich https://docs.nc/marion@epa.gov; Geidosch, Justine https://docs.nc/marion@epa.gov; Cullen, Angela https://docs.nc/marion@epa.gov; Shores, Richard@epa.gov; Yelverton, Tiffany@epa.gov; Olechiw, Michael https://docs.nc/marion@epa.gov; Yelverton, Tiffany@epa.gov; Olechiw, Michael h

Cc: Weinstock, Lewis < Weinstock. Lewis@epa.gov>

Subject: RE: Check In -- EtO Testing

Per our conversation and this email, I will propose the following:

- 4 cans per each of 3 test days: 2 ambients (intake air and dilution air), test 1 (cold start phase of FTP) and test 2 (a composite of phase 2 and phase 3 of the FTP)
- 1 spiked can

I don't know that I can get them to commit to three days of testing and a spike, but will get back to everyone if we can't do at least one full test day.

Thomas Long, Mechanical Engineer Mail Drop E343-02 Building D Room 360 109 T. W. Alexander Drive Research Triangle Park, NC 27711

Phone: 919-541-3944

From: Hoyer, Marion

Sent: Thursday, April 04, 2019 6:06 PM

To: Cook, Rich < Cook, Rich@epa.gov>; Long, Thomas < Long, Thomas@epa.gov>; Hays, Michael

<a href="mailto:squar

<olechiw.michael@epa.gov>

Cc: Weinstock, Lewis < Weinstock. Lewis @epa.gov >

Subject: RE: Check In -- EtO Testing

I want to circle back to our conversation today and some thoughts we had about these preliminary, screening analyses from the LD GDI just to offer the perspective that all our results need to be FOIA-able and therefore robust, even though they are preliminary. This makes me feel stronger about our need to spike a source sample from the GDI. We do not want to be vulnerable to legitimate criticism regarding potential EtO degradation/interaction with water in the source sample, etc.

Tiffany, let us know if you think your excellent genset spiked recovery test would sufficiently cover this potential concern/criticism regarding some preliminary results for the LD GDI. I don't want to unnecessarily add an extra sample at this early stage given that we are needing to work so ardently and provide considerable cash to Enthalpy to get these few samples analyzed.

Thanks to you all! Marion